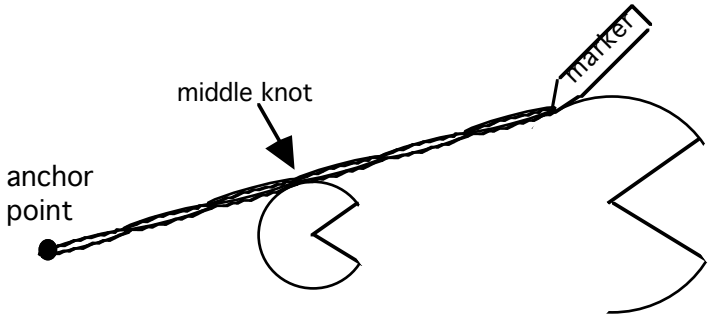
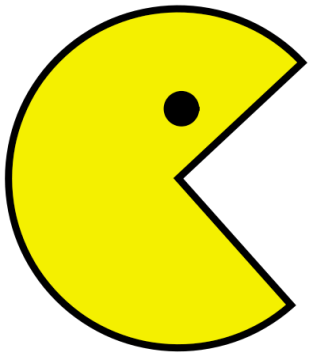
The Super-Sizer

Task 1: Make a Super-Sized Pac Man
Directions
1) Loop together two rubber bands.
2) Place a piece of paper to the right of this activity sheet (or to the left if you are left handed).
3) Determine where to draw your anchor point. To do this, have the knot of your rubber band touch the far left edge of the picture and pull the left end of the rubber band so it is tight and draw your anchor point here.
4) Have your partner hold the end of 1 rubber band on your anchor point and also hold the sheets of paper.
5) Put your pencil in the other end of the rubber band and stretch the rubber band so that the knot is over the edge of Pac-Man.
6) Begin drawing by watching the knot and making sure it traces over the Pac-Man (you do not need to see what you're drawing; keep you eyes focused on moving the knot over the Pac-Man). See diagram below for help.



6) Trade roles with your partner so that each of you is able to make your super-sized Pac-Man.



Task 2: Make a Super-Sized Rectangle and Triangle

Follow the same steps as above to make a super-sized rectangle and triangle.

Anchor Point
for figures 1 and 2

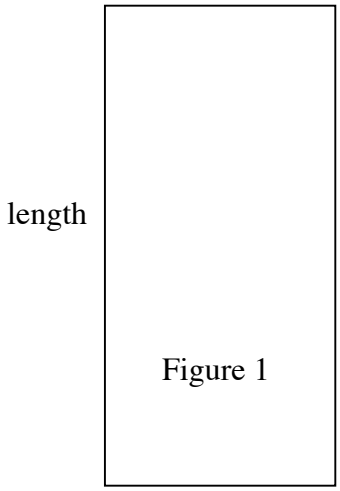


Figure 1

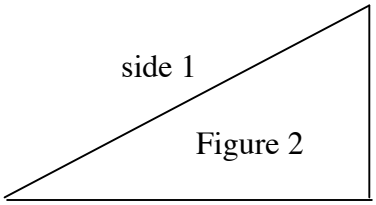


Figure 2

Analyzing the Super-Sized Rectangle and Triangle

Using a ruler, measure the dimensions (in cm) of each of your original shapes and your super-sized shapes. Record the data in the table below.

Rectangle

	Original Shape	**Super-Sized Shape**	**Approximate Enlargement**
Length			
Width			

Triangle

	Original Shape	**Super-Sized Shape**	**Approximate Enlargement**
Side 1			
Side 2			
Side 3			

Use the data from your table to investigate if your original figure and enlarged figure are proportional.

Rectangle

1. $\frac{\text{Original Length}}{\text{Original Width}} = \frac{\text{Super-Sized Length}}{\text{Super-sized Width}}$ — = —

Triangle

2. $\frac{\text{Original Length Side 1}}{\text{Original Length Side 2}} = \frac{\text{Super-Sized Length Side 1}}{\text{Super-sized Length Side 2}}$ — = —

Triangle

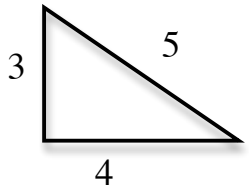
3. $\frac{\text{Original Length Side 1}}{\text{Original Length Side 3}} = \frac{\text{Super-sized Length Side 1}}{\text{Super-sized Length Side 3}}$ — = —

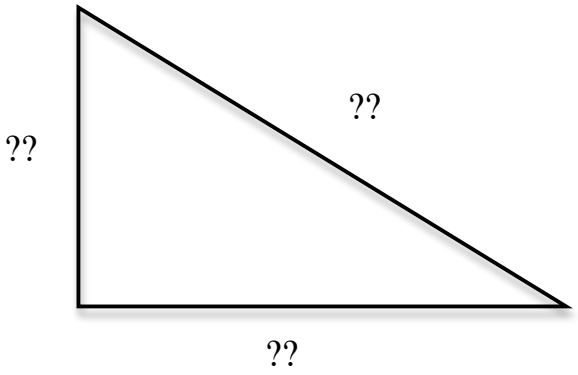
Conclusions:

1. About how many times larger did you make the side lengths of each figure? Why did it turn out this way? How could you make a triple size picture?

2. Does the data seem proportional? Why or Why not?

3. If I began with the triangle shown below and made a super-sized version so that the side lengths were all 4 times as long, what would the side lengths be for the enlarged triangle?





Task 2 (LEFTY): Make a Super-Sized Rectangle and Triangle
Follow the same steps as above to make a super-sized rectangle and triangle.

Use your "enlarger" to enlarge each figure. Use the anchor points that are marked and a paper to the left of this sheet

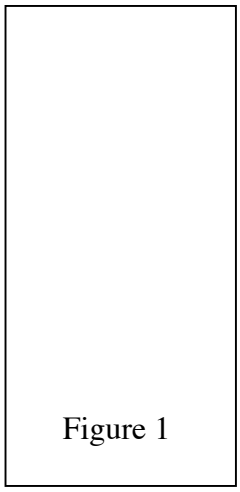


Figure 1

Anchor Point
for figures 1 and 2

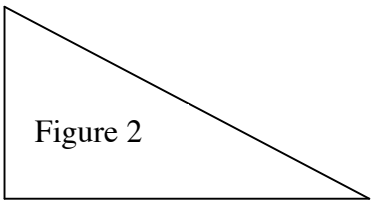


Figure 2